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NEW SOLAR HOMES PARTNERSHIP JUNE 12TH WORKSHOP
COMMENTS OF MICHAEL KYES[1]

I appreciate the opportunity to comment on the New Solar Homes Partnership proposal. I believe that the majority of the proposal has merit and have limited my comments here to the few items with which I have issues.

PERFORMANCE CALCULATOR

The inclusion of software for an upgraded performance calculator in the NSHP that incorporates time variant valuation is a very positive step. The CPUC staff proposal for CSI lacks this extremely important program component. Should this development venture prove successful the CEC should share the technology and methodology with the CPUC. This would allow a consistency across both programs and reduce overall program costs.

Since the calculator is based on hourly data it should be viable to add the ability to export hourly data to other software programs. This would be a very valuable feature since hourly data is extremely important when calculating the size of a PV system where the end use customer will be on a Time of Use (TOU) tariff. Without hourly data system sizing is just a guess. System sizing should be as accurate as possible to optimize the public investment in rebates to consumers.

During the workshop of June 12th, the issue of whether the weather files are accurate and reflect current climate conditions was raised. I believe that this would be important information and should be validated for both the performance calculator and Title 24.

[1] Michael Kyes has been in the software development business for thirty years and has managed all stages of the software development process. He has produced products for Mattel, The Learning Company and Intuit, among others. He holds copyrights on many programs which he developed for both business and consumer applications. Mr. Kyes currently provides energy analysis for residential consumers and Title 24 analysis for contractors and developers. He is on the design team for the first (maybe second) LEED Certified Custom Home in California. He also serves as Director of Marketing and Sales for a Residential Solar Energy System firm in Northern California.

INCENTIVE LEVELS

As the Commission is aware, the price of PV modules has increased significantly over the last year. The rebate amount per watt is decreasing and the availability of modules has been sporadic. These factors are increasing the cost of installed systems. Recently PG&E has replaced the Time of Use E-7 tariff with E-6. Whether deliberately or inadvertently this tariff change has made smaller residential PV systems much less affordable to the consumer. If the Commission wishes to encourage the installation of smaller systems the Commission either needs to increase the rebate amount, have the tariff modified or hope for significant electrical rate increases. Otherwise, the only systems installed will be in large homes of the financially affluent.

GEOGRAPHIC SCOPE

The staff proposal to more heavily weight **new** construction incentives to areas that have high air conditioning demands and poor electrical infrastructure rewards urban sprawl. Urban sprawl increases demand for other forms of energy by encouraging long commutes (i.e. gasoline consumption) and decentralizing the distribution of goods. The CPUC staff proposal recommends that geographic location not be considered a criterion. Their logic is that since all ratepayers are contributing equally, all ratepayers should benefit equally. A number of participants at the workshop mentioned Green Building and LEED building. LEED criteria in particular focuses on infill construction in locations close to public transit and employment, reducing not just the building energy use but the overall energy use of the occupants. This is sometime referred to as Smart Growth.

As it applies to new housing, the Commission should NOT adopt the staff's proposed policy. If the Commission wishes to coordinate with other State programs for reducing Global Greenhouse Gasses and improve transportation efficiency, the Commission should adopt a policy that rewards Smart Growth and reduces all forms of energy consumption.

ENERGY EFFICIENCY REQUIREMENTS

I strongly agree with the Commissions desire to require enhanced energy requirements for residential buildings. As was pointed out in the workshop, it is fairly simple to achieve a 20% improvement over T-24 standards. For most residential buildings this could be accomplished with increased insulation, upgraded windows and perhaps installing on-demand gas water heaters. To reach the 40% over T-24 threshold is a bit more tricky in a conventionally built building and may require some actual design considerations. While reaching the 40% level is not much of a percentage increase in cost for a custom home, this level may meet some resistance by production home

builders. A single 20% requirement would seem sufficient, the higher tier will probably only benefit higher end consumers who are in lesser need of the rebate.

As I stated, I strongly support enhanced energy efficiency requirements. Given the relative ease of achieving 20% over compliance and considering the few homes that will be built with solar PV compared to the total homes that will be built the Commission could provide significant benefit to the ratepayers by requiring all new homes to exceed T-24 standards by 20%.

Thank you for your consideration in these matters.

Michael Kyes